Economic Comments on Media Ownership Issues

by

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We have been asked by the Joint Commenters (Fox, NBC, Telemundo and Viacom) to examine certain economic arguments and evidence submitted in the first round of public comments in this proceeding by Professors Marius Schwartz and Daniel R. Vincent (on behalf of the NAB), Dr. Mark Cooper (on behalf of the Consumers' Federation and others) and Dr. Dean Baker (on behalf of AFTRA and others). Our analysis in response to these points appears below. Our failure to address other points made by these commentators should not be interpreted as acceptance of their validity.

I.

"The Television National Ownership Cap and Localism" by Marius Schwartz and Daniel R. Vincent on behalf of the NAB

The Schwartz and Vincent paper purports to find economic support for retention of the 35-percent national ownership cap rule as applied to television stations and the right-to-refuse rule, which applies to clearances of network programming by affiliated TV stations. In Schwartz and Vincent's words (at 16):

Despite the emergence of competing media alternatives, the major broadcast networks remain a substantial force in the video marketplace. The national ownership Cap implies that, to reach the local markets that account for a majority of TV households, the networks today must collaborate with independently owned affiliates. The current system, where this collaboration is constrained by the Right-to-Reject Rule, is an intermediate one in terms of control over programming decisions. Affiliates are not granted unfettered discretion, and the network is not granted complete control.

The Cap and the Right-to-Reject Rule do not bestow any obvious negotiating power to affiliates. However, given an effective Rule, relaxing or eliminating the Cap would likely result in more uniformity of programming. Allowing a network to own stations in more markets would allow it to enforce adherence to its programming schedule in this additional set of markets. While such a move may well result in increased overall profit and, plausibly, increased network investment in programming, it also would remove affiliates' flexibility to make programming decisions. A consequence is that programming decisions would be aimed at a representative "national viewer" rather than being oriented towards specific local markets, thereby sacrificing localism.

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These conclusions provide extraordinarily qualified support for the position advocated. Weak as they are, the conclusions are illogical and self-contradictory, for the following reasons.

The purpose of government regulation of ownership is, or should be, to preserve competition in order to benefit consumers. Much of the Schwartz and Vincent paper is concerned with the relative profitability or negotiating power of networks and affiliates. Nothing in the Schwartz and Vincent paper demonstrates that these rules they support benefit consumers. The economic literature on network-affiliate relations, including the Commission's Network Inquiry Special Staff studies, demonstrates the opposite, that the Commission's regulation of network-affiliate contracts harms consumers. Schwartz and Vincent themselves admit that repeal "plausibly, [would increase] network investment in programming." Schwartz and Vincent provide no reason except localism why the Commission should sacrifice consumer welfare in order to "increase affiliates' flexibility to make programming decisions."

More generally, the alleged "sacrifice of localism," even if it were a quantitatively significant phenomenon in terms of hours of programming, cannot bear rational scrutiny. The localism in question is merely the exercise of program choice by a local station, not necessarily the provision of programming with local content. Even if it were, there is no sound basis for favoring programming with local content at the expense of programming of greater value to viewers. It is nonsense to suppose that, when they are granted the "flexibility" to preempt network programming, local stations are freed to serve up content arising locally. When stations preempt, they do so to make a greater profit. Stations may preempt network movies with syndicated movies, for example, because to do so produces

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Networks act as intermediaries between stations and both advertisers and program suppliers. Networks exist because the simultaneous use of common programming in many markets produces more attractive programming, larger audiences and lower costs. Despite the greater efficiency of network supply, individual affiliates may have incentives to free ride by ignoring the effects on other stations of their decisions to preempt network programming. Further, the threat of preemption may enable affiliates to extract a larger share of the gains from the networking arrangement.

more commercial availabilities, offsetting the smaller audience often associated with less attractive (less expensive) fare. The religious programming, such as The Billy Graham Crusade, for which network programs are sometimes preempted is chiefly paid programming, equivalent from an economic perspective to infomercials.

Schwartz and Vincent conclude that the networks remain a "substantial force in the video marketplace." Whatever Schwartz and Vincent may mean by the term "substantial force," clearly it is not market power. If broadcast networks lack market power, then a necessary condition for adverse economic welfare effects from vertical integration is absent.

Schwartz and Vincent also conclude that "The [rules] do not bestow any obvious negotiating power to affiliates," apparently implying that there is no financial benefit to the affiliates. However, the authors also acknowledge that the rules give affiliates "flexibility to make programming decisions." Flexibility is a benefit to affiliates which the affiliates receive without negotiation or payment. Such an outcome is tantamount to a change in negotiating power.

The empirical evidence, which we supplied in Economic Appendix G in the first-round comments, is that neither independent affiliates nor network O&Os preempt a significant amount of network programming.² Neither the average number of hours preempted nor the difference in the averages of the two groups is quantitatively significant. The current rules, whatever "flexibility" they may create for affiliates, clearly do not result in any significant exercise of the power to choose. To sacrifice consumer welfare to this trivial end would be extraordinarily bad public policy.

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² See Economic Study G attached to Joint Commenters' first round filing.

Comments of Consumer Federation of America, Consumers Union, Center for Digital Democracy and Media Access Project, by Dr. Mark Cooper

Dr. Cooper's lengthy report in this proceeding is heavily laden with citations to academic literature allegedly supporting with research evidence his views on the effects of ownership concentration. We collected and examined some of the materials that Dr. Cooper cites in support of his key points. These materials are summarized below. It seems reasonable to expect, without pedantry, that materials cited in support of a specific claim would at least mention, if not actually back, the claim. An alarming number of Dr. Cooper's supporting citations fail this simple test.

1. Ownership concentration and diversity

Dr. Cooper (at 48) cites various sources to demonstrate that "[e]mpirical evidence clearly suggests that concentration—fewer independent owners—in media markets has a negative effect on diversity." If diversity is defined as ownership diversity, there is no need for empirical evidence: it is evident that, holding the number of outlets constant, common ownership will tend to increase concentration and decrease diversity. If viewpoint diversity is intended, empirical evidence could be valuable. But the studies Cooper cites either fail to consider diversity or concentration at all, or offer no empirical evidence. Here are Dr. Cooper's citations to this "evidence:"

• H. J. Levin, "Program Duplication, Diversity, and Effective Viewer Choices: Some Empirical Findings," *American Economic Review*, 1971.

The author examines how television programming diversity is affected by the entry of commercial and non-commercial television broadcasters. The paper does not study the effects of concentration, holding the number of stations constant.

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• S. Lacy, "A Model of Demand for News: Impact of Competition on Newspaper Content," *Journalism Quarterly*, 1989.

This theoretical paper does not offer any empirical evidence, nor does it examine viewpoint diversity.

• T. J. Johnson and W. Wanta, "Newspaper Circulation [sic] and Message Diversity in an Urban Market," *Mass Communications Review*, 1993.

This paper finds measurable differences in content and appearance between the *St. Louis Post-Dispatch* and each of two other daily newspapers with which it competed at different periods. Diversity under different levels of concentration, holding the number of newspapers constant, is not studied.

• W. R. Davie and J. S. Lee, "Television News Technology: Do More Sources Mean Less Diversity, *Journal of Broadcasting and Electronic Media*, 1993, p. 455.

News coverage by three local television stations in each of three cities is compared to determine the degree to which stories on the various stations covered the same subject or different subjects. Stations in larger markets are found to offer more unduplicated stories. Effects of concentration are not studied.

• W. Wanta and T. J. Johnson, "Content Changes in the St. Louis Post-Dispatch During Different Market Situations," *Journal of Media Economics*, 1994.

This study looks at whether content in a metropolitan daily newspaper is different in periods when it competes with another metropolitan daily newspaper and periods when it did not. The study does not examine concentration holding the number of outlets constant.

• D. C. Coulson, "Impact of Ownership on Newspaper Quality," *Journalism Quarterly*, 1994.

A survey of newspaper journalists finds that responses to questions about news coverage and diversity in their newspapers did not differ measurably between journalists employed by independent and group-owned newspapers. Concentration is not considered.

• D. C. Coulson and Anne Hansen, "The Louisville Courier-Journal's News Content After Purchase by Gannett," *Journalism and Mass Communications Quarterly*, 1995.

This case study looks at the effects on editorial quality when the newspaper changed owners. It does not address the relationship between concentration and diversity.

• Petros Iosifides, Diversity versus Concentration in the Deregulated Mass Media, Journalism and Mass Communications Quarterly, Spring 1999.

This paper presents arguments, but no empirical evidence, regarding possible effects of concentration on diversity.

• Lacy, Stephen and Todd F. Simon, Competition in the Newspaper Industry, in *The Economics and Regulation of United States Newspapers* (Norwood, NJ: Ablex, 1999).

The authors consider differences in news quality (and other performance measures) comparing two independent competing daily newspapers and two jointly owned or JOA newspapers. They do not measure diversity or how it is affected by ownership concentration.

2. Ownership concentration and minority-taste programming

Dr. Cooper states (at 57), "There is also clear evidence that greater concentration will reduce public interest and culturally diverse programming, as well as locally-oriented programming. News and public affairs programming is particularly vulnerable to these economic pressures." In a footnote, he cites nine articles to substantiate his claims about the effect of concentration on public interest and culturally diverse programming. A brief summary of the subject of each of these articles is presented below. None of them presents evidence of the effects of concentration on "public interest and culturally diverse" or "locally-oriented" programming.

• V. A. Stone, "Deregulation Felt Mainly in Large-Market Radio and Independent TV," *Communicator*, April 1987, p. 12.

"Deregulation" refers to the lifting of FCC requirements regarding news and public affairs programming on radio and TV stations. The paper presents responses to a survey asking about the effects of this deregulation. No evidence is presented on any role played by concentration.

• P. Aufderheide, "After the Fairness Doctrine: Controversial Broadcast Programming and the Public Interest, *Journal of Communication*, 1990, pp. 50-51.

This paper discusses the effects of the Fairness Doctrine and its suspension. It does not present evidence regarding concentration and any effect on programming.

• M. L. McKean and V. A. Stone, "Why Stations Don't Do News, *Communicator*, 1991, pp. 23-24.

The authors use a phone survey of programmers at radio and TV stations to conclude that most stations not carrying news do so because news is not sufficiently profitable or because they do not consider news to be part of their "mission." Concentration is not studied as a factor.

• V. A. Stone, "New Staffs Change Little in Radio, Take Cuts in Major Markets TV, *RNDA*, 1988.

This article reports the findings of an annual national survey conducted for RTNDA. Comparisons are made between 1986 and 1987. Full-time news staff was about the same in both years for the typical commercial radio station. Television news staffs were reduced in the largest 50 markets, grew moderately in the middle 100 markets, and were relatively unchanged in the smallest markets. The article does not mention ownership concentration

• K. L. Slattery and E. A. Kakanen, "Sensationalism Versus Public Affairs Content of Local TV News: Pennsylvania Revisited," *Journal of Broadcasting and Electronic Media*, 1994.

This study of newscasts of ten Pennsylvania television stations finds that "the amount of sensationalism/human interest coverage has increased significantly since the midseventies" when the subject was previously studied. Concentration was not investigated as a factor.

• J. M. Bernstein and S. Lacy, "Contextual Coverage of Government by Local Television News," *Journalism Quarterly*, 1992.

This study investigates differences between small-market and large-market TV stations' coverage of government news. No evidence regarding concentration is presented.

• R. L. Carrol, "Market Size and TV News Values," *Journalism Quarterly*, 1989.

This article deals with the effect of market size on TV station news "values." Five hypotheses about the type of news covered are articulated and explored. All five hypotheses relate to differences between small and large markets. None deals with ownership concentration.

• D. K. Scott and R. H. Gopbetz, "Hard News/Soft News Content of the National Broadcast Networks: 1972-1987," *Journalism Quarterly*, 1992.

This paper examines trends in the amount of soft news in network news programming. It does not study news programming by local stations, and does not investigate concentration.

• V. E. Ferrall, "The Impact of Television Deregulation," *Journal of Communications*, 1992, pp. 21, 28, 30.

The paper reviews FCC regulatory changes in 1981-1987. No evidence is presented on the effect, if any, of concentration.

3. Ownership concentration and local programming

Dr. Cooper cites (at 57) two articles in support of his claim that concentration will reduce locally oriented programming. Neither article correlates commercial media concentration with locally oriented programming.

• Kathryn Olson, "Exploiting the Tension between the New Media's 'Objective' and Adversarial Roles: The Role Imbalance Attack and Its Use of the Implied Audience," *Communications Quarterly* 42:1, 1994, pp. 40-41.

The Olson paper discusses the potential relationship between television, both broadcast and cable, and adversarial reporting. It does not address concentration, locally oriented programming, or any link between the two.

• G. Stavitsky, "The Changing Conception of Localism in U.S. Public Radio," *Journal of Broadcasting and Electronic Media*, 1994.

This paper focuses on public radio and suggests that public radio has shifted away from a "localism" defined by geography and toward one characterized by shared social characteristics. This paper thus seems to suggest that a narrow focus on geographic localism is misplaced, and calls for "diversity of programming to serve an assortment of audience communities, in accordance with a social conception of localism." Ownership concentration in commercial media is not addressed.

4. Ownership concentration and news programming

Dr. Cooper cites (at 57) one article in support of his claim that concentration can adversely affect news and public affairs programming. The article cited does not address the impact of concentration on news/public affairs programming.

• J. H. McManus, "What Kind of Commodity is News?," *Communications Research*, 1992.

This paper argues that advertiser-supported media have an incentive to produce a product that has a minimal threshold appeal to a maximum number of demographically desirable consumers in a given area. Whatever the merits of this argument, it does not depend on media concentration.

5. Ownership concentration and ownership diversity

Dr. Cooper states: "Greater concentration results in less diversity of ownership, and diversity of ownership—across geographic, ethnic, and gender lines—is correlated with

diversity of programming." (Cooper at 61) He cites nine articles that allegedly support his claim regarding the relationship between concentration and diversity of ownership.

Many of these articles either do not address or do not support Dr. Cooper's arguments.

• M. Fife, "The Impact of Minority Ownership on Broadcast Program Content: A Case Study of WGPR-TV's Local News Content," (Washington: National Association of Broadcasters, 1979).

This case study considers whether the program content of a minority-owned television station differs from that of a majority-owned station, especially with respect to service to minority communities. Far from supporting the argument put forth by Dr. Cooper relating ownership diversity to diversity of programming content, this study actually contradicts it, concluding that "the case for stating that minority ownership increased the amount of content diversity for Detroit-area news was not strongly supported."

• M. Fife, The Impact of Minority Ownership on Broadcast Program Content: A Multi-Market Study, (Washington: National Association of Broadcasters, 1986).

This study asks whether minority-ownership of stations affected diversity of coverage in four local television markets. The results are mixed, at times indicating no significant difference between minority- and majority-owned stations in their coverage of minority issues.

 Congressional Research Service, "Minority Broadcast Station Ownership and Broadcast Programming: Is There a Nexus?" (Washington: Library of Congress, 1988)

This report examines the relationship between minority ownership of broadcast stations and coverage of minority issues. The study purports to find that minority ownership results in a greater degree of minority programming. This conclusion is seriously undermined, however, by the admission by the study's authors that it is "difficult to determine to what degree station programming studies are market driven rather than the results of minority ownership interests." In other words, the study does not hold constant other, non-ownership, factors that affect programming decisions.

• T. A. Hart, Jr., "The Case for Minority Broadcast Ownership," *Gannett Center Journal*, 1988.

This article indicates that a court opinion declared that minority ownership and participation in broadcasting could be expected to advance programming diversity, but it provides no support for this proposition.

• K. A. Wimmer, "Deregulation and the Future of Pluralism in the Mass Media: The Prospects for Positive Policy Reform," *Mass Communications Review*, 1988.

The author cites other studies that purport to show that concentration would tend to bring broadcast media ownership further into the hands of more powerful owners and limit minority entrepreneurs' access to broadcast facilities. The author does not independently address the relationship between concentration and diversity.

• T. G. Gauger, "The Constitutionality of the FCC's Use of Race and Sex in Granting Broadcast Licenses," *Northwestern Law Review*, 1989.

This law review article provides legal analysis of the constitutionality of the FCC's use of race, gender, and ethnicity among factors in licensing decisions. It concludes that from a legal perspective, it should be constitutional for the FCC to consider minority status as a factor in licensing decisions, "even though it may be difficult to determine 'how, when, or if' minority or female ownership will contribute to the robust exchange of ideas in the media." The author does not study independently the effect of minority ownership on programming content, acknowledging only that he is addressing the issue of constitutionality "under the assumption that diversity of ownership produces diversity of programming, opinion, and viewpoint in broadcasting."

• H. Klieman, "Content Diversity and the FCC's Minority and Gender Licensing Policies," *Journal of Broadcasting and Electronic Media*, 1991.

The paper addresses the FCC's minority and gender licensing policies and First Amendment rights. It is not an independent study relating diversity of ownership to diversity of programming. Summarizing other studies on the subject, the author concludes that "research that addresses the relationship between [minority] ownership variables and programming provides mixed results."

• L. A. Collins-Jarvis, "Gender Representation in an Electronic City Hall: Female Adoption of Santa Monica's PEN System, *Journal of Broadcasting and Electronic Media*, 1993.

This study considers Public Electronic Networking Systems (a precursor to the Internet), and it finds a high rate of adoption in Santa Monica by women. This article does not address the issues of diversity and concentration raised by Dr. Cooper.

• Stephen Lacy, Mary Alice Shaver, and Charles St. Cyr, "The Effects of Public Ownership and Newspaper Competition on the Financial Performance of Newspaper Corporations: A Replication and Extension," *Journalism and Mass Communications Quarterly*, summer 1996.

This study asks whether public ownership of newspapers affects financial performance. It also purports to examine the impact of competing daily newspapers on newspaper groups' financial performance. The study suggests that public ownership and daily competition may have some effect on financial performance, but it does not address the relationship between concentration and diversity.

6. National owners and local needs

Dr. Cooper summarizes Professor Waldfogel as saying that "concentration of national and local markets into national chains reinforces the tendencies of media owners to ignore local needs." (Cooper at 82) He cites one article in support of this statement, but this article does not include any evidence in support of Dr. Cooper's statement.

• Ronald J. Krotoszynski, Jr. and A. Richard M. Blaiklock, "Enhancing the Spectrum: Media Power, Democracy, and the Marketplace of Ideas," *University of Illinois Law Review*, 2000.

The authors of this law review article make sweeping claims ("The Commission's efforts to preserve localism as a feature of the broadcast media will be effectively thwarted if large, corporate entities are permitted to amass large station holdings and use central

programming techniques to achieve economies of scale and scope." "Common ownership of media outlets is not conducive to competition in news and other local content programming.") but they provide no empirical evidence that concentration leads to the neglect of local needs.

We have not examined every citation offered by Dr. Cooper in support of his views on the various consequences of media ownership concentration. Still, the preceding six exercises provide ample evidence that the academic literature contains far less support for Dr. Cooper's views than the volume of his citations would suggest.

7. Media ownership policy

Dr. Cooper notes that the D.C. Circuit Court of Appeals has "demanded an internally consistent, evidence based approach" to rules restricting media ownership.³ In case the current rules and supporting evidence do not meet this standard, Dr. Cooper offers a framework for alternative rules.⁴ To judge from his example of full power television in the New York DMA, he proposes that relevant markets be defined individually for each media technology. Market shares for TV, newspaper and radio would be calculated separately, based on the number of users. Depending on the post-merger concentration level, he proposes that some within-medium mergers be prohibited, others permitted, and intermediate cases be subject to waiver. He proposes that mergers across media (e.g., TV-newspaper) be prohibited if either medium is "highly concentrated."

Dr. Cooper's framework bears a distant resemblance to the *Horizontal Merger Guidelines* used by the U.S. Department of Justice and the Federal Trade Commission, and Dr.

Cooper at 285-9.

Cooper at 284.

Cooper invokes the antitrust enforcement guidelines as background for his proposal. As a general matter, the DOJ/FTC Guidelines are widely considered to be an economically sound approach to deciding whether a proposed merger would reduce competition. However, Dr. Cooper departs from the Guidelines principles in several important ways.

The principal departure is that Dr. Cooper has prejudged the issue of relevant product and geographic market. Central to the Guidelines is a methodology for defining relevant markets, which takes into account such factors as the quality and availability of substitutes for users and the ability of other firms to compete for those users. Dr. Cooper's approach would carve into stone certain technology-defined product markets which are arguably too narrow and which are very likely to change over time.

Further, Dr. Cooper increases the range of market structures considered to be "highly concentrated" by lowering the bottom of that range from an HHI of 1,800 in the Guidelines to an HHI of 1,667.⁵ He offers no reason why anticompetitive conduct is likely at a lower concentration level in these media than in other parts of the economy. In practice, DOJ and the FTC often conclude that mergers raising concentration to levels above 1,800 pose no threat to competition, due to other considerations (such as ease of entry) spelled out in the Guidelines. Dr. Cooper's approach would not consider such factors.

The DOJ/FTC Guidelines recognize that most mergers are proposed for reasons that are other than possible anticompetitive effects. They presume that parties proposing a merger expect to reach an economically superior position that benefits consumers, for example by reducing costs or enhancing their ability to offer an appealing product. If a merger is not anticompetitive, it is not necessary to demonstrate that the merger is desirable. Dr. Cooper would change this presumption. Mergers with post-merger HHIs falling in a middle range would be required to demonstrate that the merger would "promote the public interest." This shifting of the burden of proof is unwise because it would impose

⁵ Cooper's minimum level is six equal-sized firms. The HHI for a market of six equal-sized firms is 1.667.

unnecessary costs on, and thus tend to discourage, the many transactions that benefit consumers.

Dr. Cooper suggests restricting cross-media mergers that, according to his own logic, could not have a significant effect on either competition or diversity. His insistence on separate concentration calculations for TV, radio and newspapers presumes that there is no significant substitution among these media. If one accepts this premise, the presence of an independently-owned firm in one medium does not significantly affect the alternatives available to users of another medium. In this case, there is no reason to prohibit cross-media mergers, since (according to Dr. Cooper) firms using different media technologies do not compete.

Contrary to Dr. Cooper's suggestions, accepted antitrust enforcement methods should be applied to mergers of media outlets. Dr. Cooper provides no basis for his proposed modifications to accepted policies.

Somewhat more generally, Dr. Cooper appears to support policies that would turn mass media into special interest media, leaving mass audience tastes unserved. Most of his complaints about media performance amount to accusing the media of serving the needs and interests of the greater part of the public. CFA's policy proposals apparently are intended to have the effect of denying or reducing service to the majority in order to cater to minority tastes. It is difficult to see why the Commission should take such a welfare-reducing suggestion seriously.

"Democracy Unhinged" by Dr. Dean Baker, sponsored by American Federation of Television and Radio artists, The Newspaper Guild-Communications Workers of America, and Writers Guild of America-East

Dr. Dean Baker comments on specific FCC-sponsored studies, and argues that some of the results do not support repeal of the rules or might be altered if the studies were done differently. No reasonable person can disagree that, as a general matter, empirical studies honestly done may have mixed results, and it is always possible that altered procedures or data would produce different results. However, most of Dr. Bakers points are nitpicks. Others (detailed below) are mistaken. None offers a reason to discount the thrust of the FCC Studies.

1. Diversity

In FCC Study #9, Williams, Brown, and Alexander examine changes in content diversity in radio markets following the 1996 Telecommunications Act. The authors conclude that, overall, song diversity remained stable between March 1996 and March 2001. They find that while play lists for stations within the same format grew slightly more uniform across local markets, diversity in play lists for same-format stations competing in the same local market grew significantly, so that listeners in local radio markets may have experienced increased choice. The authors reach no definitive conclusions as to how concentration in ownership affects play list diversity.

Dr. Baker (at 18) interprets the findings of FCC Study #9 as suggesting that there will be fewer distinct songs broadcast on radio across the nation. Dr. Baker claims that Williams,

Dean Baker. "Democracy Unhinged: More Media Concentration Means Less Public Discourse: A Critique of the FCC Studies on Media Ownership." (2002).

Williams, George, Keith Brown and Peter Alexander. "Radio Market Structure and Music Diversity." Federal Communications Commission (2002). (FCC Study #9.)

et al. find a statistically significant reduction in the diversity of songs. This claim appears to be flatly contradicted by Study #9's finding "that the overall diversity has increased very slightly, from 9.26 to 9.32, only 0.74%."

Perhaps the statistically significant reduction in the diversity of songs that Dr. Baker refers to is Study #9's finding that overall *within*-format song diversity declined. However, the within-format decline is more than offset by the *increased* diversity among stations *across* formats. Similarly, while Study #9 finds a decrease in diversity of songs within a format across markets, the increase in diversity of songs within a format within a market more than offset this decrease. Other things equal, diversity within markets has some claim to policy significance. Diversity across markets has much less, if any, policy significance because it has no effect on any given listener.

2. Advertising rates and competition

In FCC Study #4, Brown and Williams examine the relationship between radio advertising rates and market concentration. They find that increases in local concentration accounted for an increase in real advertising prices of 2.5-3.5 percent. This is a very small portion of the increase in real advertising rates the authors calculate occurred over this period, most of which the authors attribute to the growth of demand for advertising.

Economists Incorporated previously commented on Study #4, pointing out that (1) the study fails to control for changes in the quality or attractiveness of radio audiences, as perceived by advertisers, and (2) the study did not control for competition from other advertising media. Controlling for these factors may account for some or all of the 2.5 to 3.5 percent increase in rates that Brown and Williams attribute to consolidation.

Brown, K. and G. Williams. "Consolidation and Advertising Prices in Local Radio Markets." Federal Communications Commission (2002).

⁸ FCC Study #9 at 13.

This is based on the authors' revised econometric results.

Economic Study D attached to Joint Commenters' first round filing.

Dr. Baker (at 19) criticizes the finding of Brown and Williams as being implausible on its face. Baker claims that radio advertising prices fell in real terms over the entire period from 1961 to 1994 and that only since the relaxation in ownership rules has the real price of radio advertising increased. Dr. Baker's analysis of prices is based on work done by Silk, Klein and Berndt ("SKB"). SKB showed for the period as a whole, from 1961 to 1994, the average annual percentage changes in the media cost-per-thousand price indices for network radio and spot radio were less than the average annual change in the CPI.

Economists Incorporated obtained media cost-per-thousand indices from Universal McCann Media, ¹³ the same source used by SKB. These data are inconsistent both with the claim by Brown and Williams that the real price of radio advertising rose by 60 percent from 1996 to 2001 and with the claim by Dr. Baker that radio advertising prices fell in real terms over the entire period from 1961 to 1994.

Brown and Williams, using data from SQAD, computed that real radio advertising prices, on a cost-per-thousand ("CPM") basis, increased by 60 percent from 1996 to 2001. ¹⁴ In contrast, the Universal McCann data indicate that from 1996 to 2001 real network radio CPM advertising rates increased by 13.4 percent and that real spot radio CPM advertising rates increased by 14.8 percent. ¹⁵ If one accepts Brown and Williams' conclusions about the relative importance of demand growth and other factors, one would conclude that

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Silk, A., L. Klein, and E. Berndt. "Intermedia Substitutability and Market Demand by National Advertisers." NBER Working Paper No. 8624 (2001).

[&]quot;Universal McCann Media Cost Indexes." (Unpublished paper, August 2002), available from Robert J. Coen, Senior Vice President and Director of Forecasting, Universal McCann, New York.

The authors report a 68 percent increase in real advertising rates. They calculate this as the percent change in nominal advertising rates minus the percent change in the CPI. However, if one properly deflates prices first, one finds a real price increase of 60 percent, not 68 percent as reported in the paper. The SQAD data are supposed to reflect national spot radio advertising rates.

Brown and Williams based their measure on advertising rates from the first-quarters of 1996 and 2001 whereas the Universal McCann indices are based on the entire year. One way to adjust for this difference may be to look at the increase in advertising rates from 1995 to 2000 using the Universal McCann data. Doing this indicates that both network and spot radio advertising real rates increased by about 30 percent over this period, still significantly less than the estimate produced by Brown and Williams.

radio CPM advertising rates increased by less than 0.5 percent from 1996 to 2001 due to factors other than economic growth (e.g., improved audience demographics).

While both network radio and spot radio CPM advertising rates grew more slowly than the consumer price index ("CPI") on average over the 1961-1994 period, consistent with the results reported by SKB and cited by Dr. Baker, it is not true that in every year they grew more slowly than the CPI. For example, during 1981-1986 network and spot radio CPM advertising rates increased not only faster than the CPI, but also faster than during 1996-2001. And it is not just radio advertising rates that increased faster than the CPI during these periods. From 1981 to 1986, network TV, spot TV and newspaper CPM advertising rates also increased faster than the CPI. From 1996 to 2001 network TV, spot TV, and cable TV CPM advertising rates increased faster than the CPI and generally faster than network and spot radio advertising rates. ¹⁶ Percentage changes in CPM advertising rates over selected periods are presented in the following table.

Percentage Change in Selected Media CPM Advertising Rates and the Consumer Price Index

	News-	Network	Spot	Cable	Network	Spot	
Period	papers	TV	$\overline{\mathbf{T}}\mathbf{V}$	TV	Radio	Radio	CPI
1961 – 94	480.7%	487.5%	421.9%	na	168.0%	237.0%	394.0%
1981 - 86	47.6%	55.6%	48.2%	na	46.4%	39.1%	20.9%
1996 - 01	14.6%	42.7%	28.4%	43.9%	28.0%	29.5%	12.9%
Source: Media	cost-per-thousar	nd indexes tables	in "Universal l	McCann Med	ia Cost Indexes,"	(August 2002).	

The observation that during certain periods advertising rates increase faster than the CPI is not surprising. Advertising rates are determined in part by advertising demand, and advertising demand growth traditionally increases significantly during periods of rapid economic expansion, such as the period that characterized the U.S. economy from roughly 1993 to 2000. The Universal McCann data indicate that real advertising rates of radio, television, and newspapers started increasing around 1993, following a period of real rate declines that started around 1988-89.

From 1996 to 2001 spot TV rates increased faster than network radio rates but slower than spot radio rates. From 1995 to 2000 all three television advertising rates increased faster than or as fast as both of the radio advertising rates.

The Universal McCann Media Cost data, upon which Dr. Baker indirectly relies, illustrate two points. First, the increase in real radio advertising rates from 1996 to 2001 may not have been as large as Brown and Williams report in FCC Study #4. Second, advertising rates increasing faster than the CPI is not a rare event, as Dr. Baker makes it out to be. Real radio advertising rates increased at a faster rate during 1981-1986 than during 1996-2001, and the increase in real radio advertising rates from 1996 to 2001 was matched by an increase in real television advertising rates during the same period. Moreover, Dr. Baker has presented no evidence to contradict Brown and Williams' finding that only 3 percent of the real increase in radio advertising rates from 1996 to 2001 is due to factors other than economic growth.

3. Editorial independence of commonly-owned outlets

Dr. Baker provides comments (at 5 ff) on FCC Ownership Study #2, which examines whether cross-ownership of newspaper and television stations led to a common slant in reporting on the 2000 presidential race. Baker argues that David Pritchard, the author of Study #2, inappropriately fails to compare the observed slant of the specific newspapers and television stations studied to the slant shown by a reference group of newspapers and television stations. Dr. Baker also criticizes the decision to study the slant in reporting on the 2000 election.

In FCC Study #2, Pritchard examines the news coverage during the last 15 days of the 2000 presidential campaign in 10 cross-owned newspaper-television combinations. ¹⁷ The study codes all available non-advertising content about the campaign as either "favorable to Bush," "favorable to Gore," or "neutral." Slant reflects an assessment of whether the item would make an undecided voter more likely to vote for Bush, for Gore, or to have only a minimal effect. For each news organization's coverage, a slant "coefficient" is computed, varying from –100 (indicating that all items favored Gore) to +100 (indicating

David Pritchard. "Viewpoint Diversity in Cross-Owned newspapers and Television Stations: A Study of News Coverage of the 2000 Presidential Campaign." Federal Communications Commission (2002). (FCC Study #2.)

that all items favored Bush). Perfectly balanced coverage would have a slant coefficient of 0.18

Pritchard then examines the difference between the slants of a commonly owned newspaper and television station in a community. According to the study, the greater the difference in slant, the stronger the evidence that cross-owned newspapers and television stations provided different views of the 2000 presidential campaign. Pritchard concludes that the difference between slants was meaningful in 5 of the 10 cases examined.

Dr. Baker first argues that the Pritchard study is flawed because it does not compare the coverage with a reference group of newspapers and television stations that are not parts of combinations. Baker's argument seems to be that in determining whether a newspaper or television station has a pro-Bush or a pro-Gore slant the comparison needs to be against the average nationwide newspaper or television slant and not against an absolute value of zero.

This criticism, however, is off the mark. As Pritchard explains,

Whether a slant coefficient was positive (i.e., pro-Bush) or negative (i.e., pro-Gore) is not important to the analysis. Rather, it was the magnitude of the difference between the slant coefficients of a commonly owned newspaper and television station in a given community that provided evidence for distinct views of the campaign.¹⁹

Hence, there is no need to renormalize against some national average in order to determine if a station is pro-Bush or pro-Gore. The study is not aimed at testing whether one outlet had a Bush slant and the other outlet had a Gore slant. The study was much more sophisticated, designed to find differences in slant not only when one outlet had a Bush slant and the other outlet a Gore slant, but also when one outlet had a slight Bush (Gore) slant and the had had a much stronger Bush (Gore) slant.

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Pritchard points out that coefficients different from 0 should not be construed as evidence of bias since during any period there is a certain amount of objective news that by its tenor may be anti-Bush or pro-Gore.

FCC Study #2.

Dr. Baker also claims that two of the television stations identified as having a Gore slant actually slanted more toward Bush because their slant was less than the average pro-Bush slant. This criticism makes no sense. Such reclassification would have no effect on the outcome of the study since such classification was not used to determine if there was a significant difference in slant. Moreover, to classify a station as pro-Bush simply because the station's pro-Bush slant is below the average pro-Bush slant seems ill-advised. For example, even if all television stations had strong pro-Gore slants, Dr. Baker would insist on classifying some of them as having a pro-Bush slant because they weren't pro-Gore enough. This produces a nonsense result.

Dr. Baker argues that a second fundamental design problem in the Pritchard study stems from the news issue examined. Dr. Baker claims that the 2000 election didn't provide much incentive for the media to try to influence the results. On the one hand, he says the media knew it would be close and wouldn't want to be seen as biased against the winner (who was unknown) and therefore might tend to avoid taking sides. On the other hand, he also says the election wasn't close in many of the states in which the 10 outlet pairs were located. Since there was little chance for the media to influence the outcome, there was no reason for the media to pick a side.

This is faulty logic. Basically, Dr. Baker says the media never take sides. If the election is close, the media don't take sides for fear of being on the wrong side. If the election is not close, the media don't take sides because it doesn't matter. If the media truly do not take sides in an election then why should we worry about the effect of ownership on media coverage? Again, Dr. Baker's criticism produces a nonsensical result.

Dr. Baker says a better issue to test for independence is one in which the newspaper or TV station owners have a decided interest. For example, Dr. Baker says there may be a greater interest by media owners in issues that affect advertisers, such as the minimum wage laws or bankruptcy laws for credit card companies. It is true there are many other political questions about which independence could be tested. But FCC Study #2 did

what it did, and a presidential choice is hardly inconsequential. If Dr. Baker wanted to measure something else he should have done so.

Dr. Baker's criticisms do not undermine FCC Study #2's finding that there is evidence of diversity in viewpoint within commonly-owned media. Evidence of diverse viewpoints within commonly-owned media, however, this does not mean that a jointly owned newspaper and television station should be counted as separate for diversity purposes, as explained in Economic Study F attached to the first-round filing by the Joint Commenters. Such evidence does suggest, though, that competitive market forces are today sufficient to prevent monolithic uniformity of viewpoints among commonly-owned media.

4. Slower growth of outlets

In FCC Study #1, Roberts, Frenette, and Stearns examine the number of media outlets and owners in ten selected markets over the forty years from 1960 to 2000.²⁰ The authors found that the number of media outlets and owners increased tremendously. In a study focusing on the radio industry, Williams and Roberts (FCC Study #11) report an increase in the number of commercial radio stations between March 1996 and March 2002.²¹ This increase took place not only in all markets taken together, but also in the Top 10, Top 25, Top 50, and Top 100 markets examined separately. A study of the broadcast television industry by Levy, Ford-Livene, and Levine (FCC Study #12) reports that the number of full power television broadcast stations increased substantially over the last ten years.²²

Dr. Baker, while not disagreeing that the number of media outlets has increased, interprets these studies as showing that the growth in the number of media outlets has

Roberts, Scott, Jane Frenette and Dione Stearns. "A Comparison of Media Outlets and Owners for Ten Selected Markets." Federal Communications Commission (2002). (FCC Study #1.)

Williams, George and Scott Roberts. "Radio Industry Review 2002: Trends in Ownership, Format, and Finance." Federal Communications Commission (2002). (FCC Study #11.)

Levy, Jonathan, Marcelino Ford-Livene, and Anne Levine. "Broadcast Television: Survivor in a Sea of Competition." Federal Communications Commission (2002). (FCC Study #12.)

slowed sharply.²³ Dr. Baker apparently seeks to imply that the slowing growth of media outlets is due to prior relaxations of ownership rules. While all three studies do provide evidence that the growth in the number of media outlets has slowed, none of the studies directly examines the link between changes in regulation and the growth of outlets, or tries to disentangle what may be a variety of causative factors.

The history of broadcast regulation over the past forty years has been marked by progressive abandonment of the Commission's previous policies of protecting incumbent licensees from increased competition. The Commission has gradually permitted increased competition from new technologies (e.g., cable and satellite) and market forces have introduced other new forms of competition (video rentals, for example). The Commission itself has liberalized allocations, as with VHF drop-ins. Assuming that the Commission's prior policies maintained an artificial scarcity of outlets, relaxation of these policies would naturally cause the number of outlets to increase. Other things equal, growth of outlets from this cause would eventually slow and cease as the number of outlets approached competitive equilibrium. Thereafter, the number of outlets would grow only with the economy as a whole. This explanation fits the facts without any need to resort to a murky and mysterious connection between ownership regulation and outlet growth.

Dr. Baker himself hints at another alternative to relaxed regulation that would account for a slowdown in growth, but does not explore it. Baker notes that it might be appropriate to exclude the New York market from his analysis since its airwaves are approaching saturation. But Baker does not provide any analysis of the degree of saturation of the New York market or of any other market. In any market where the number of broadcast outlets is constrained by the FCC's allotment tables to be less than the competitive equilibrium number, actual or approaching saturation provides another explanation of slowing growth.

Baker at 15-18, 20-21.

Dr. Baker also suggests that relaxed regulation plays a role in the slower growth of educational television stations in the last decade. In particular, he points to a table in FCC Study #12 that shows no increase in educational stations from 1995 to 2000. Part of the slowdown in the growth of educational stations may be due to the allotment caps and to saturation, as with commercial stations.

A second alternative explanation takes account of the fact that much of the historical growth of educational stations has been due to geographic expansion to formerly unserved areas. Opportunities for such expansion may have become scarce by 1996. Approximately 60 percent of new educational stations that came on-air from 1960 to 1985 were in DMAs that did not already have an educational station, and the number of DMAs with an educational station grew from 43 to 175. In contrast, since 1985 only 17 percent of new education stations represent expansion into new DMAs and the number of DMAs with an educational station has increased to 184. Hence the slowdown in the growth of educational stations may be due to reduced opportunities for geographic expansion rather than to any regulatory changes.

There is a third alternative explanation for slowing growth of educational stations. One would expect a decrease in the rate of growth of audiences and financial support for public and educational stations as specialized cable networks increasingly supply viewers with many of the program categories previously found only on public television. Examples of such networks include Bravo, A&E, The National Geographic Channel, The Learning Channel, The History Channel, and the various Discovery channels.

Dr. Baker has established neither a theoretical nor an empirical relationship between the growth rate of media outlets, either radio or broadcast television, and any of the ownership rules. He simply states that the growth rates are slowing and that the rules are

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This is based on the BIA Master Access Data Base (November 2002). It assumes that stations classified as type PUB are educational stations. It also assumes that if a station is currently an educational station then it was always an educational station.

changing and thus tacitly suggests that there is a link. We think that the facts have alternative plausible and far less mysterious explanations.

5. O&O news programming and station age

Dr. Baker comments (at 7-9) on FCC Ownership Study #7, which finds that stations owned and operated by one of the four major networks ("O&O stations") had more news and higher quality news than affiliates of the same networks. Dr. Baker states that the study could have been improved had it used regression analysis instead of a simple comparison of averages. He also suggests that "older" stations might have more news and that the analysis should control for this.

Economists Incorporated confirmed through regression analysis that O&O stations carry more news than affiliate stations. The results are reported as Economic Study H attached to the first-round filing by the Joint Commenters. Two different regression specifications are utilized. The first is a simple regression in which the only explanatory variables were market size (DMA rank) and a variable indicating whether the station was an O&O or an affiliate. The second regression adds as explanatory variables station characteristics such as the stations' network affiliations and revenues and DMA characteristics such as the number of full-power commercial stations and various demographic and media use measures. Both regressions find that O&O stations carry significantly more minutes of local news than affiliates, holding these other factors constant. These results are summarized in the table below, in columns (2) and (3). As seen in column (3), for instance, the regression shows that if an O&O station and an affiliate station each have the average values for all factors other than ownership, the O&O station carries an estimated 507 minutes (8.5 hours) per week) more local news than the affiliate station, a difference of 37 percent.

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This regression model was proposed in an "early filing" by the National Association of Broadcasters and the Network Affiliated Stations Alliance. "The Measurement of Local Television News and Public Affairs Programs': Analysis of Media Ownership Working Group Study."

²⁶ Column (1) reports the average news minutes for the two station groups included in the EI sample.

	EI sample average	Estimated average, controlling for other factors			
		Simple model	Full model not including	Full model including	
			age	age	
	(1)	(2)	(3)	(4)	
Minutes/week	1,802	1,781	1,864	1,786	
O&Os	1,372	1,376	1,357	1,402	
Affiliates	430	405	507	384	
Difference					
Hours/week					
O&Os	30.0	29.7	31.1	29.8	
Affiliates	22.9	22.9	22.6	23.4	
Difference	7.2	6.8	8.5	6.4	
O&Os as percentage of affiliates	131%	129%	137%	127%	

Source: Economic Study H and Table [2] below.

Neither regression in Economic Study H included a measure of station age. It is not clear why station age should affect news output, nor does Dr. Baker offer much explanation. However, EI ran an additional regression that included station age to determine whether this variable would change the previous findings. It does not. The regression results are presented in Table [2]. Age is defined as the number of years between the station's start date, as reported by BIA, and 2002. The estimated coefficient on "age" is significant and positive, indicating that, holding other factors constant, older stations do indeed carry more local news. Other estimated coefficients that are statistically significant when age is not included remain significant and have the same sign when age is included.

Contrary to Dr. Baker's speculation, adding the age variable does not alter the conclusion that the effect of network station ownership on local news coverage is positive. Column (4) in the table above presents revised results when age is added as an explanatory variable. Under this model specification, an O&O station carries an estimated 384 minutes per week (6.4 hours per week) more local news than an affiliate station located in

the same "average" DMA and with the same "average" station characteristics, including age but not including ownership. This is a difference of 27 percent.

In summary, O&O stations carry significantly more local news than affiliate stations, even when the age of the station is controlled for.²⁷

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EI also investigated whether other regression results would be affected by including the age variable. The finding in Economic Study H that there was no significant difference between O&O stations and affiliate stations in the number of news awards won was unchanged. Results in Economic Study B are similarly unchanged: the variable indicating stations that are part of a commonly owned local station group or same-market LMA relationship was significant in Table B2 but not significant in Tables B3-B6, as before.

Table [1]. Variable Definitions

TOTMIN_LPC_STA_TVG Weekly total minutes of local news, public and current

affairs programming offered by a station (TV Guide)

OANDO 1 if it is an O&O station; 0 otherwise (BIA)

AGE Station age, in years

RANK DMA market rank (Nielsen)

ABC A dummy variable for ABC affiliates (BIA)
NBC A dummy variable for NBC affiliates (BIA)
CBS A dummy variable for CBS affiliates (BIA)

NUM STAS The number of stations held by the same owner (BIA)

STAREV8 Station revenue

NUMRATED M The number of stations classified as "MAIN" stations

(i.e., not cable, public, low power, Class A, translator or

satellite) (BIA)

GROSS6 Total station revenue (BIA)
AVGHHINC Average household income (BIA)

TOT50PLUS

PAPERCAPITA

ADS

The percentage of population age 50 and older (Nielsen)

Newspaper circulation per household (Editor & Publisher)

Penetration rate for non-cable video delivery system(BIA)

CABLE Cable penetration rate (BIA)

CHANELSINUSE The number of channels available in cable (Warren

Publishing)

INTERNET Internet penetration rate (US Census)

PCTLISTENING The percentage of population listening to radio (Arbitron)

Table[2]. Dependent variable: totmin_lpc_sta_tvg (tobit)
Full Model Including Age

Tobit estimates	Number of obs	=	129
	LR chi2(18)	=	87.37
	Prob > chi2	=	0.0000
Log likelihood = -951.96495	Pseudo R2	=	0.0439

Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
22.02247	3.790518	5.81	0.000	14.51131	29.53363
384.3366	96.50267	3.98	0.000	193.1101	575.5631
-4.86032	4.110614	-1.18	0.240	-13.00578	3.285136
-179.1287	122.0402	-1.47	0.145	-420.9596	62.70215
291467	115.066	-0.00	0.998	-228.3024	227.7194
-180.2612	116.7581	-1.54	0.125	-411.6252	51.10271
-7.378729	2.85429	-2.59	0.011	-13.03469	-1.722763
.0050281	.0022906	2.20	0.030	.0004891	.0095671
21.28036	25.48752	0.83	0.406	-29.22486	71.78558
0009834	.0008842	-1.11	0.268	0027355	.0007686
001177	.0136196	-0.09	0.931	0281651	.0258111
-7.071807	17.42522	-0.41	0.686	-41.60104	27.45743
2509034	.1978494	-1.27	0.207	6429552	.1411485
11.192	21.4639	0.52	0.603	-31.34016	53.72415
6.117538	10.74526	0.57	0.570	-15.17491	27.40999
6.325708	4.98738	1.27	0.207	-3.557118	16.20853
1.311346	7.590875	0.17	0.863	-13.73048	16.35317
32.65166	69.13899	0.47	0.638	-104.3519	169.6552
-437.269	2356.93	-0.19	0.853	-5107.683	4233.145
428.1291	26.9575		(Ancillary	parameter)	
	22.02247 384.3366 -4.86032 -179.1287 291467 -180.2612 -7.378729 .0050281 21.28036 0009834 001177 -7.071807 2509034 11.192 6.117538 6.325708 1.311346 32.65166	22.02247 3.790518 384.3366 96.50267 -4.86032 4.110614 -179.1287 122.0402291467 115.066 -180.2612 116.7581 -7.378729 2.85429 .0050281 .0022906 21.28036 25.487520009834 .0008842001177 .0136196 -7.071807 17.425222509034 .1978494 11.192 21.4639 6.117538 10.74526 6.325708 4.98738 1.311346 7.590875 32.65166 69.13899 -437.269 2356.93	22.02247 3.790518 5.81 384.3366 96.50267 3.98 -4.86032 4.110614 -1.18 -179.1287 122.0402 -1.47291467 115.066 -0.00 -180.2612 116.7581 -1.54 -7.378729 2.85429 -2.59 .0050281 .0022906 2.20 21.28036 25.48752 0.830009834 .0008842 -1.11001177 .0136196 -0.09 -7.071807 17.42522 -0.412509034 .1978494 -1.27 11.192 21.4639 0.52 6.117538 10.74526 0.57 6.325708 4.98738 1.27 1.311346 7.590875 0.17 32.65166 69.13899 0.47 -437.269 2356.93 -0.19	22.02247 3.790518 5.81 0.000 384.3366 96.50267 3.98 0.000 -4.86032 4.110614 -1.18 0.240 -179.1287 122.0402 -1.47 0.145 291467 115.066 -0.00 0.998 -180.2612 116.7581 -1.54 0.125 -7.378729 2.85429 -2.59 0.011 .0050281 .0022906 2.20 0.030 21.28036 25.48752 0.83 0.406 0009834 .0008842 -1.11 0.268 001177 .0136196 -0.09 0.931 -7.071807 17.42522 -0.41 0.686 2509034 .1978494 -1.27 0.207 11.192 21.4639 0.52 0.603 6.117538 10.74526 0.57 0.570 6.325708 4.98738 1.27 0.207 1.311346 7.590875 0.17 0.863 32.65166 69.13899 0.47 0.638 -437.269 2356.93 -0.19	22.02247 3.790518 5.81 0.000 14.51131 384.3366 96.50267 3.98 0.000 193.1101 -4.86032 4.110614 -1.18 0.240 -13.00578 -179.1287 122.0402 -1.47 0.145 -420.9596 291467 115.066 -0.00 0.998 -228.3024 -180.2612 116.7581 -1.54 0.125 -411.6252 -7.378729 2.85429 -2.59 0.011 -13.03469 .0050281 .0022906 2.20 0.030 .0004891 21.28036 25.48752 0.83 0.406 -29.22486 0009834 .0008842 -1.11 0.268 0027355 001177 .0136196 -0.09 0.931 0281651 -7.071807 17.42522 -0.41 0.686 -41.60104 2509034 .1978494 -1.27 0.207 6429552 11.192 21.4639 0.52 0.603 -31.34016 6.117538 10.74526 0.57 0.570 -15.17491 6.325708

Obs. summary: 2 left-censored observations at t~lpc_~g<=0, 127 uncensored observations